
CANCER FACTS

National Cancer Institute • National Institutes of Health

Questions and Answers About Screening, Early Detection, and Treatment for Colorectal Cancer

1. What is colorectal cancer?

Colorectal cancer is a disease in which cells in the colon or rectum become abnormal and divide without control or order, forming a mass called a tumor. (The colon and rectum are parts of the body's digestive system that remove nutrients from food and store waste until it passes out of the body.) Cancer cells can invade and destroy the tissue around them. They can also break away from the tumor and spread to form new tumors in other parts of the body.

2. Who is at risk?

The exact causes of colorectal cancer are not known. However, studies show that certain factors increase a person's chance of developing colorectal cancer:

- **Age.** Colorectal cancer is more likely to occur as people get older. Most people who develop colorectal cancer are over the age of 50. However, the disease can occur at any age.
- **Diet.** The development of colorectal cancer seems to be associated with a diet that is high in fat and calories and low in foods with fiber, such as whole grains, fruits, and vegetables. Researchers are exploring how these and other dietary components play a role in the development of colorectal cancer.
- **Polyps.** Polyps are benign growths (not cancer) on the inner wall of the colon or rectum. They are relatively common in people over age 50. Because most colorectal cancers develop in polyps, detecting and removing these growths may be a way to prevent colorectal cancer. **Familial polyposis** is a rare, inherited condition in which hundreds of polyps develop in the colon and rectum. Unless this condition is treated, a person who has it is extremely likely to develop colorectal cancer.



- **Personal history.** A person who has already had colorectal cancer may develop colorectal cancer a second time. Also, research studies show that women with a history of ovarian, uterine, or breast cancer have a somewhat increased chance of developing colorectal cancer.
- **Family history.** Close relatives (parents, siblings, or children) of a person who has had colorectal cancer are somewhat more likely to develop this type of cancer themselves, especially if the relative developed the cancer at a young age. If many family members have had colorectal cancer, the chances increase even more.
- **Ulcerative colitis.** Ulcerative colitis is a condition in which the lining of the colon becomes inflamed. People who have ulcerative colitis are more likely to develop colorectal cancer.

3. What are screening tests, and why are they so important?

Screening tests are examinations that check for health problems before they cause symptoms. Screening tests are important because finding health problems at an early stage often means that treatment will be more successful.

Colorectal cancer screening tests are used to detect cancer, polyps that may eventually become cancerous, or other abnormal conditions.

Most people who undergo colorectal screening do not have any colorectal abnormality. For those who do, diagnosis and treatment can occur promptly.

4. What tests are used to screen people for colorectal cancer?

People who have any risk factors for colorectal cancer (see question 2) should ask their doctor when to begin screening for colorectal cancer, what tests to have, and how often to schedule appointments. Doctors may suggest one or more of the tests listed below as a part of regular checkups.

- A **fecal occult blood test (FOBT)** is a test for hidden blood in the stool. This test has been proven to reduce the death rate of colorectal cancer.
- A **sigmoidoscopy** is an examination of the rectum and *lower* colon with a lighted instrument.
- A **colonoscopy** is an examination of the rectum and *entire* colon with a lighted instrument.

- A **double contrast barium enema** is a series of x-rays of the colon and rectum. The x-rays are taken after the patient is given an enema with a white, chalky solution that contains barium to outline the colon and rectum on the x-rays.
- A **digital rectal exam (DRE)** is a test in which the doctor inserts a lubricated, gloved finger into the rectum to feel for abnormal areas.

5. Do insurance companies pay for colorectal cancer screening?

People should check with their health insurance provider to determine their colorectal cancer screening benefits. People who are age 50 or older and are covered by Medicare are eligible for colorectal cancer screening benefits. Additional information is available on the Medicare Web site at <http://www.medicare.gov/health/overview.asp> on the Internet.

6. Does colorectal cancer cause symptoms?

Common symptoms of colorectal cancer include the following:

- A change in bowel habits;
- Diarrhea, constipation, or feeling that the bowel does not empty completely;
- Blood in the stool (either bright red or very dark in color);
- Stools that are narrower than usual;
- General abdominal discomfort (frequent gas pains, bloating, fullness, and/or cramps);
- Weight loss with no known reason;
- Constant tiredness;
- Vomiting.

These symptoms can be caused by cancer or by a number of other conditions. It is important to check with a doctor.

7. How is colorectal cancer diagnosed?

To find the cause of symptoms, the doctor evaluates one's personal and family medical history. The doctor also performs a physical exam and may order one or more diagnostic tests. These may include a blood test called a **CEA assay** to measure a protein called carcinoembryonic antigen that is sometimes higher in patients with colorectal cancer. The doctor may also order **x-rays** of the gastrointestinal tract, **sigmoidoscopy**, or **colonoscopy** (see question 4). If abnormal tissue is found during these tests, a **biopsy** (the removal of tissue for examination under a microscope by a pathologist) is performed to determine if a person has cancer.

If the diagnosis is cancer, the doctor will want to learn the stage (or extent) of disease. Staging is a careful attempt to find out whether the cancer has spread and, if so, to what

parts of the body. Knowing the stage of the disease helps the doctor plan treatment. Additional tests may be performed to help determine the stage.

8. How is colorectal cancer treated?

Treatment for colorectal cancer depends on a number of factors, including the general health of the patient and the size, location, and extent of the tumor. Many different treatments and combinations of treatments are used to treat colorectal cancer.

- **Surgery** to remove the cancer is the most common treatment for colorectal cancer. The type of surgery that a doctor performs depends mainly on where the cancer is found.
- **Chemotherapy** is the use of anticancer drugs to kill cancer cells. The anticancer drugs circulate in the bloodstream and affect cancer cells throughout the body.
- **Radiation therapy**, also called radiotherapy, involves the use of high-energy x-rays to kill cancer cells. Radiation therapy affects the cancer cells only in the treated area.
- **Biological therapy**, also called immunotherapy, uses the body's immune system, either directly or indirectly, to fight cancer. The immune system recognizes cancer cells in the body and works to eliminate them. Biological therapies are designed to repair, stimulate, or enhance the immune system's natural anticancer function.

9. Do patients with colorectal cancer participate in clinical trials (research studies)?

Yes, patients with all stages of colorectal cancer can take part in clinical trials (research studies). Clinical trials to evaluate new ways to treat cancer are an appropriate treatment option for many patients with this disease. Through research, doctors learn new ways to treat cancer that may be more effective than the standard therapy. Research has led to significant advances in the treatment of colorectal cancer. Information about ongoing clinical trials is available from the Cancer Information Service (see below), or from the National Cancer Institute's cancerTrials™ Web site at <http://cancertrials.nci.nih.gov> on the Internet.

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY (for deaf and hard of hearing callers): 1-800-332-8615

NCI Online***Internet***

Use <http://cancer.gov> to reach NCI's Web site.

CancerMail Service

To obtain a contents list, send e-mail to cancermail@cips.nci.nih.gov with the word "help" in the body of the message.

CancerFax® fax on demand service

Dial 1-800-624-2511 or 301-402-5874 and follow the voice-prompt instructions.

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